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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,114	02/11/2004	Anthony Verloop	CFP-014824 (15745/438)	2787
69638 7590 05/15/2007 KAMRATH & ASSOCIATES P.A. 4825 OLSON MEMORIAL HIGHWAY SUITE 245 GOLDEN VALLEY, MN 55422			EXAMINER SHARMA, SUJATHA R	
			ART UNIT 2618	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/776,114

Applicant(s)

VERLOOP ET AL.

Examiner

Sujatha Sharma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12 and 17-21 is/are rejected.
- 7) ☐ Claim(s) 7, 13-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Delaney [US 2005/0083971].

Regarding claim 1, Delaney discloses a gateway (here this has the same functionality as a repeater) capable of transmitting packets between WLAN and wide area networks. Delaney further discloses a method of managing a wireless repeater/access point comprising the steps of:

- preparing a wireless repeater with multiple wireless communication system drivers (see Fig 6 where the gateway has different drivers such as WLAN module 610, wide area network (WWAN) module 612), each of the multiple wireless communication system drivers supporting a different version of wireless communications protocols (WLAN module supports the IEEE 802.11x where x is a/b/g protocols and WWAN module can be a module for GSM protocols), to enable the personal computing device to establish bi-directional communication with a target system, that may only support a particular version of wireless communications protocols, operating on a personal communications device, a mobile communications system, or a WLAN; See paragraphs 9,10,55-57;

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- enabling the wireless repeater to establish regular communication links with the personal computing device through a first wireless communications module; see paragraphs 9,10,55-57 where communication is established using WLAN module;
- enabling the wireless repeater to establish regular communication links with a mobile communications network through the mobile communications module, and to detect whether the call is an incoming call or an outgoing call for initiating a call interrupt. See paragraphs 9 and 10 where the call is intercepted in order to convert the voice stream to the appropriate protocol for proper delivery of the call; see paragraphs 9,10,55-57 where regular communication link with a mobile communication network such as GSM is established using WWAN module;
- enabling the wireless repeater to establish a communication link with an access point of the WLAN through a WIFI communications module (610 in fig. 6) on the condition that the personal computing device (102) has successfully logged onto the network; see paragraphs 9,10,55-57 where communication is established using WLAN module; See paragraphs 30 and 31.

Regarding claim 2, Delaney discloses an access point with WWAN access module such that the personal computing device is able to establish communication links with the GPRS system to transmit or receive electronic mails and perform web site services. See pages 7,8

Regarding claim 3, Delaney discloses an access point with WWAN access module such that the

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personal computing device is able to establish communication links with the GSM system to make an outgoing call or receive an incoming call. See paragraphs 9,10,55-57

Regarding claim 4, Delaney discloses an access point with WWAN access module such that the personal computing device is able to establish communication links with the GSM system to make an outgoing call or receive an incoming call. See paragraphs 9,10,55-57.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delaney [US 2005/0083971] in view of DeBeer [US 2005/0101323].

Regarding claims 5,6 Chang as treated in claim 1 discloses all the limitations as claimed.

However, he does not specifically disclose a method wherein the personal computing device is configured with the wireless repeater such that the personal computing device through the relay function of the wireless repeater can use a net phone (VoIP) to make connection with another phone.

DeBeer, in the same field of endeavor teaches a method where a call is made over the Internet, which reads on the claim limitation "VoIP". See paragraph 2.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of DeBeer to modified Chang in order to enable a mobile device to perform the least cost routing for the intended call.

5. Claims 8-11,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delaney [US 2005/0083971].

Regarding claim 8, Delaney discloses a wireless repeater with a diverse communications interface capability, comprising:

- a microprocessor serving as a control hub; see Fig. 6, element 600
- a first wireless communications module for establishing bi-directional communication with a personal computing device; see fig 6, module 610
- a mobile communications module, being connected to the microprocessor , for making connection with two mobile communications systems (GPRS/GSM); see paragraphs 9,10,55-57 and pages 7,8
- a WIFI communications module, being connected to the microprocessor (10), for making connection with a WLAN; see element 610 in fig. 6
- whereby the microprocessor can automatically detect and switch to an appropriate wireless/mobile communications system to match the target system on the remote that may only support a particular version of wireless communications protocols, for bi-directional communication between the personal computing device and the target system.

See paragraphs 9,10,55-57

Delaney, however, specifically does not disclose a CODEC for encoding and decoding voice signals in the data transmission process; However, in paragraphs 9 and 10 a method is disclosed

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that the voice signals are converted to the appropriate protocols before routing them to the desired destination terminal and this reads on the claimed limitation of the use of CODEC.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the CODEC interface in Delaney's gateway in order to convert the voice streams to the appropriate protocols in order to route them to the desired destination terminal.

Regarding claim 9, Delaney discloses a method wherein the first wireless communications module can be a Bluetooth module. See paragraph 56.

Regarding claim 10, Delaney discloses a method wherein the mobile communications module is a GSM/GPRS interface. See pages 7,8

Regarding claim 11, Delaney discloses a method wherein the WIFI communications module is a transceiver for a wireless local area network WLAN. See paragraphs 9,10,55-57.

Regarding claim 20, Delaney discloses all the limitations as claimed. Delaney further discloses where the processor is connected to a memory unit. However, he does not disclose a method wherein the memory unit is installed with flash RAMs and DRAMs. However, the use of flash RAMs and DRAMs with a processor in mobile communication systems is well known in the art and is used to improve the performance of the system.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the flash RAMs and DRAMs in Delaney's gateway in order to improve the performance of the system

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Delaney [US 2005/0083971] in view of Balachandran [US 2005/0078620].

Regarding claim 21, Delaney discloses all the limitations as claimed. However, he does not disclose a method wherein the wireless repeater further includes a power supply module for providing the operating voltage to all system components.

Balachandran, in the same field of endeavor, teaches a gateway that further includes a power supply module. See paragraphs 7 and 11.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the power supply module in Delaney's gateway to provide a constant power supply to all the components in order for the proper functioning of all the components.

7. Claims 12,17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delaney [US 2005/0083971] in view of Wesby [US 2006/0122925].

Regarding claim 12, Delaney discloses all the limitations as claimed. However, he does not disclose a method wherein the wireless repeater further includes a third wireless communications module that is an infrared transmission interface for transmission of voice and digital data.

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Wesby, in the same filed of endeavor, teaches a method wherein a wireless platform includes a different communications module including an infrared transmission interface for transmission of voice and digital data. See paragraphs 3,60 and 69.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide above teaching of Wesby to Delaney in order to provide a more cost effective and more flexible system to a user who can communicate using various technologies.

Regarding claims 17,18 Wesby discloses a method wherein the personal computing device is a laptop computer, which reads on the claimed feature. See paragraph 9.

Regarding claim 19 Wesby discloses a method wherein the personal computing device is a personal digital assistant (PDA). See paragraph 13

Allowable Subject Matter

8. Claims 7 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 is directed towards a method of managing a diverse wireless repeater, wherein the personal computing device is configured with the wireless repeater such that the user is able to use a headset with a high-speed port (HSP) to make telephone calls or receive calls.

Claims 13,14 is directed towards a repeater wherein the CODEC interface module is formed by

a PWM CODEC and a voice CODEC, wherein the PWM CODEC is connected to the first wireless communications module and through the voice CODEC is further connected to the microprocessor. Further the CODEC interface module has a pair of multiplexers installed in between the PWM CODEC and the voice CODEC, wherein one of the two multiplexers is connected to a headset plug-in socket, whereby the multiplexer can switch the voice data transmission path between the first wireless communications module and the headset connected through the voice CODEC and the microprocessor.

Claims 15 and 16 is directed to a method wherein the microprocessor is further connected to a prompter, whereby the prompter can generate vibrations, light beams, or ringing tones to notify the user when an incoming call is received, or when the wireless repeater has ceased the existing link with the WLAN.

The prior art individually or in combinations fails to render the above underlined unique feature obvious.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang [US 2004/0208150] Access point for indoor/outdoor 802.11

Bonner [US 2006/0286984] Multimode handset services

Vij [US 6,452,910] Bridging apparatus for interconnecting a wireless PAN and a wireless LAN

Rosener [US 2002/0028655] Repeater system

Rios [US 6,873,611] Multi-protocol WLAN access point devices

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Sundar [US 7,149,521] Method, system and apparatus for providing mobility management of a mobile station in WLAN and WWAN environments

Shoemake [US 2004/0116075] Dual platform communication controller, method of controlling a dual platform communication and wireless communication system employing the same

Liang [US 2004/0029619] System for operational coexistence of wireless communication technologies


Zehavi [US 6,990,082] Wireless apparatus having a transceiver equipped to support multiple wireless communication protocols

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sujatha Sharma
May10, 2007